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=> s de3402494/pn
L1            1 DE3402494/PN

=> d all

L1   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   1985:600016  CAPLUS
DN   103:200016
ED   Entered STN:  14 Dec 1985
TI   Metal coating of piezoceramic pieces
IN   Januschkowetz, Herbert; Laub, Hans
PA   Siemens A.-G. , Fed. Rep. Ger.
SO   Ger. Offen., 14 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
IC   ICM  H01L041-22
     ICS  C23C020-04
CC   57-2 (Ceramics)
     Section cross-reference(s): 56, 76
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   DE 3402494            A1    19850725    DE 1984-3402494         19840125
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     EP 150363             A2    19850807    EP 1984-115064          19841210
     EP 150363             A3    19850828
         R:  CH, DE, GB, LI, NL, SE
PRAI DE 1984-3402494       A     19840125
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 DE 3402494       ICM    H01L041-22
                  ICS    C23C020-04
AB   Small, hollow, thin-walled piezoelec. ceramic tubes, e.g. Pb(Zr, Ti)O3
are
     uniformly and completely metalized in large quantities by subjecting them
     to ultrasound in alkali metal carbonate, hydroxide, or phosphate solns.
to
     remove the loose minute surface particles from the mech. treated tubes
     prior to conventional activation and subsequent metalization.  The
     ultrasound treatment renders the surfaces hydrophilic and permits
complete
     removal of the undesired particles by the salt soln. without attacking
the
     ceramic surface.  The activated surfaces are electroless coated with Ni
or
     Cu or electroless or galvanically coated with Sn, Ag, or Au.  Thus,
     piezoelec. ceramic samples are immersed in desalted water contg. 1cm3
Pril
     [39394-70-2] wetting agent/L for 5 min with ultrasound irradn. from a 40
     kHz-600 W source, immersed in a cleaning soln. contg. Pril 1 cm3/L,
     Na2CO3.10H2O 30 g/L, and Na3PO4.12H2O 20 g/L for 5 min under ultrasound
as
     above, activated in solns. contg. SnCl2 40 g/L, HCl 80 cm3/L, and HCHO 25
     cm3/L and PdCl2 0.2 g/L and HCl 5 cm3/L for 3 and 1.5 min, resp.,
     accelerated in a soln. contg. NaH2PO2.H2O 100, succinic acid  [110-15-6]
     60, and (NH4)2SO4 40 g/L, activated again in both chloride solns., and
     coated 15-20 min in a 90.degree. bath contg. NiSO4.7H2O 35, succinic acid
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60, (NH4)SO4 40, 2-hydroxy-4-methylbenzoic acid 6, and NaH2PO2.H2O 20 g/L at pH 7.5 and at a coating rate of 15 .mu./h to give smooth, uniform 3-5.mu. Ni coatings with good adhesion.

ST piezoelec ceramic metalization; lead titanate zirconate metalization; nickel coating piezoelec ceramic; gold coating piezoelec ceramic; silver coating piezoelec ceramic; copper coating piezoelec ceramic; tin coating piezoelec ceramic

IT Sound and Ultrasound, chemical and physical effects
(in surface purifn., of piezoelec. ceramics by alkali metal salts, for metalization)

IT Piezoelectric substances
(lead titanate zirconate ceramics, metalization of, surface prepn. for,
by alkali metal salts and ultrasound)

IT 12060-00-3D, solid solns. with lead zirconate 12060-01-4D, solid solns. with lead titanate
RL: USES (Uses)
(ceramics, metalization of piezoelec., surface purifn. for, by alkali metal salts and ultrasound)

IT 7440-02-0P, uses and miscellaneous 7440-22-4P, uses and miscellaneous
7440-31-5P, uses and miscellaneous 7440-50-8P, uses and miscellaneous
7440-57-5P, uses and miscellaneous
RL: PREP (Preparation); USES (Uses)
(coating of, on piezoelec. ceramics, with surface purifn. by alkali metal salts and ultrasound)

IT 110-15-6, uses and miscellaneous
RL: USES (Uses)
(in metalization, of piezoelec. ceramics)

IT 7601-54-9
RL: USES (Uses)
(surface purifn. by, of piezoelec. ceramics, with ultrasound, for metalization)

IT 497-19-8, properties
RL: PRP (Properties)
(surface purifn. by, of piezoelec. ceramics, with ultrasound, for metalization)

IT 39394-70-2
RL: USES (Uses)
(wetting agent, in metalization of piezoelec. ceramics)

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